

REMARKS

In this response, Applicants do not amend or cancel any claims. Applicants do not add any new claims. Accordingly, Claims 1-30 are pending.

I. Claims Rejected Under 35 U.S.C. §103(a)

The Examiner rejects Claims 1-4, 8-9, 12-15, 18-19, and 27-29 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,831,621 issued to Pito ("Pito").

In order to render a claim obvious, the relied upon reference must teach or suggest every limitation of the claim such that the invention as a whole would have been obvious at the time the invention was made to one skilled in the art. Independent Claims 1, 13, 27 and 29 each contain limitations that are neither taught nor suggested by Pito, which are discussed below.

In maintaining the rejection, the Examiner relies on Pito to show a scanner and a turntable that can rotate relative to the scanner. The Examiner also relies on Pito to show computer control and software, which are utilized to determine the Next Best View of the object being scanned. The Examiner notes that Pito discloses using triangulation techniques to determine ranges or distances and concludes from this that it would have been obvious to use triangulation techniques to determine the distance between the turntable and the scanner.

In addition, the Examiner takes the position that the scanner and turntable of Pito are independent units that can be connected through the use of software and computer control, noting that Pito does not specifically teach that the units are independent or that the units are integrally coupled as a single unit. However, the Examiner concludes that it would have been obvious to combine independent units into a single unit to create a portable system with an overall smaller size. Furthermore, the Examiner attempts to rely on Applicants' disclosure (Fig. 3) to show that when a digitizer and an orientation fixture are integrally connected yet separately labeled with different reference numerals, then somehow those two elements should not be considered as a

single unit. Finally, the Examiner states that the claim limitations regarding whether the digitizer and the orientation fixture are independent units or are integrally formed as a single unit are obvious and are merely a matter of semantics.

In response, Applicants first note that the triangulation of Pito is only directed towards determining the distance between the scanner and an object on the turntable, which is not the same as using triangulation techniques to determine a position of the turntable relative to the scanner. NIC Rather, as previously discussed in Applicants' Response to Office Action submitted on May 27, 2003, the scanner and turntable of Pito must be set up in a predefined position relative to each other in order for the system to operate (Col. 5, lines 40-45), which necessarily means that Pito cannot read on Applicants' independent Claim 1, which recites that the orientation fixture and digitizer do not have a predefined relative position. Thus, Pito fails to teach or suggest at least this limitation of Applicants' independent Claim 1.

Furthermore, as Applicants previously argued, the Examiner has not demonstrated whether or not the scanner and the turntable of Pito are to be interpreted as independent units or as integrally coupled as a single unit. Rather, the Examiner has conveniently concluded that either interpretation could be taught or suggested by Pito, despite the lack of any evidence or teaching by Pito of either embodiment. Applicants again invite the Examiner to specifically point out where Pito teaches or suggests either of the embodiments recited in Applicants' independent Claims 1 and 13. In the absence of such a showing, Applicants submit that at least these limitations are also neither taught nor suggested by Pito.

Regarding the Examiner's assertion that the claim limitations regarding whether the orientation fixture and the digitizer are physically independent or are integrally coupled as a single unit are a mere matter of semantics, Applicants assert that the different embodiments recited in Applicants' independent claims have legitimate structural distinctions relative to each other and, more importantly, relative to any of the teachings of Pito. Applicants respectfully remind the Examiner that it is the Examiner's burden to establish a *prima facie* case of obviousness over the art

of record, which Applicants submit the Examiner has failed to do based on the fact that the Examiner has failed to point out where Pito or any other reference teaches every limitation of Applicants' independent Claims 1 and 13.

Regarding Claim 27, the Examiner relies on Pito to show using a data analyzer to identify points of interest in the data collected, wherein the scanner and the turntable automatically rescan a portion of the object corresponding to the point of interest, whereby the three dimensional model of a portion of the object is adjusted based on the rescan. The Examiner also asserts that Pito indicates, at Col. 10, lines 65-67, that poorly sampled surfaces can be resampled or scanned with higher accuracy in order to improve image quality.

In response, Applicants submit that the cited portion of Pito discusses using multiple scans in order to obtain all of the object surface data, which is not the same as rescanning to improve data quality, as recited in independent Claim 27. For example, Pito merely teaches scanning different view points of the same object until all of the surface of the object has been scanned (Fig .2B; Col. 6, lines 10-21). Thus, any type of rescan of Pito is not performed in order to improve the quality of data of previously captured images. Rather, each Next Best View is calculated to capture the maximum amount of surface area of the object that was previously not seen (*e.g.*, in a void space) by the previous scan. Therefore, it is not appropriate to characterize taking scans of an area that was previously missed during a prior scan as rescanning the same area to improve the quality of the image already obtained. Applicants' position is supported by Pito, which indicates that the surface model of the object is built by incrementally adding range data to a partial model until the entire object has been scanned (Col. 3, lines 61-34). Thus, at least this limitation is neither taught nor suggested by Pito.

Regarding Applicants' independent Claim 29, the Examiner has failed to address Applicants' previous argument that Pito fails to teach or suggest using a rescan with a different capture method to adjust a previous image obtained with a first capture method. Therefore, Applicants' position remains the same (*e.g.*, that Pito fails to teach or suggest any type of rescan,

much less a rescan using a different capture method than the first capture method used to obtain the original image data).

Accordingly, Applicants respectfully request withdrawal of the rejection of independent Claims 1, 13, 27 and 29. Claims 2-4, 8-9, 12, 14-15, 18-19, and 28 depend from independent Claims 1, 13 and 27, respectively. The rejected dependent claims contain all of the limitations of their respective independent claims and are not obvious at least for the same reasons.

The Examiner rejects Claims 20-26 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,799,082 issued to Murphy, et al. ("Murphy").

In maintaining the rejection, the Examiner relies on Murphy to show freezing or locking image data and preventing transmission to another person or facility except those that are authorized and implement the proper request for downloading the information. The Examiner concludes that the information can be transmitted back and forth, which inherently teaches a distributed network. The Examiner further states that the frame lock mechanism of Murphy, which prevents image data from being downloaded, serves the same purpose as unlocking an image capture system.

In response, Applicants first note that apparatus 31 of Murphy appears to be a stand alone unit not connected by a distributed network to any remote nodes. Moreover, Murphy fails to teach that the image capture system is itself lockable or that an appropriate authorization sent across a distributed network can unlock the image capture system, as recited in Applicants' independent Claim 20. Rather, Murphy appears to show that apparatus 31 includes a digital frame recording and storage module 39 physically located within apparatus 31 such that a user can download digital images and associated position information directly from the digital frame recording and storage module (Fig. 7; Col. 15, lines 31-37). Thus, Applicants contend that a frame lock mechanism that prevents a direct download from a digital frame recording and storage module within an apparatus

neither teaches nor suggests sending authorization data across a distributed network to unlock an image capture system, as recited in Applicants' independent Claim 20.

Similarly, Applicants' independent Claim 23 recites capturing image data in an image capture device coupled to a distributed network and allowing access to the image data upon receipt of authorization from a remote node on the distributed network. As stated above regarding independent Claim 20, Applicants assert that preventing a download from a single apparatus, with no disclosure of any type of distributed network or remote node coupled to the network, cannot be used to render Applicants' independent Claim 23 obvious. Therefore, at least these limitations of Claims 20 and 23 are neither taught nor suggested by Murphy.

Accordingly, Applicants respectfully request withdrawal of the rejection of independent Claims 20 and 23. Claims 21-22 and 24-26 depend from independent Claims 20 and 23, respectively. The rejected dependent claims contain all of the limitations of their respective independent claims and are not obvious at least for the same reasons.

The Examiner rejects Claims 5-7, 16-17, and 30 under 35 U.S.C. §103(a) as being obvious over Pito in view of International Publication No. WO 96/02106 to Vellacott ("Vellacott").

In maintaining the rejection, the Examiner appears to merely reiterate the same rejection given above regarding Pito and additionally acknowledges that Vellacott must be used to disclose wireless communications.

In response, Applicants note that Claims 5-7 and 16-17 depend from independent Claims 1 and 13, discussed above, and contain all of the respective limitations thereof. Therefore, Claims 5-7 and 16-17 are not obvious over the cited references in combination since Vellacott fails to cure the deficiencies of Pito outlined above regarding independent Claims 1 and 13. In addition, Applicants reiterate that Vellacott teaches away from using a host PC and advocates use of wireless communication directly into a network (*e.g.*, without a host) when the camera must be used as a stand alone unit remotely deployed in the field (page 8, numbered paragraph 1). Therefore, the use

of a host, as recited in Applicants' Claims 5-6, 16-17, and 30, is specifically taught away from by Vellacott, which renders Vellacott inappropriate for combination with Pito.

Moreover, a direct wireless transmission between a camera and a network neither teaches nor suggests a wireless link between a digitizer and an orientation fixture, as recited in Applicants' Claim 7. Therefore, at least the foregoing limitations of each of the rejected claims are neither taught nor suggested by the cited references in combination.

Accordingly, Applicants respectfully request withdrawal of the rejection of Claims 5-7, 16-17, and 30.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the relied upon art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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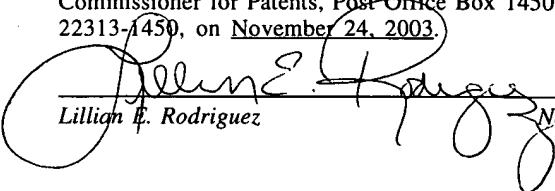
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope with sufficient postage addressed to: MAIL STOP NON-FEE AMENDMENT, Commissioner for Patents, Post Office Box 1450, Alexandria, Virginia 22313-1450, on November 24, 2003.


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